CD105PCT.ST25.txt

SEQUENCE LISTING

<110> CropDesign N.V.

<120> Plants having modified growth characteristics and method for making
       the same

<130> CD-105-PCT

<150> US 60/528,113
<151> 2003-12-09

<150> EP 03104280.7
<151> 2003-11-19

<160> 18

<170> PatentIn version 3.3

<210> 1
<211> 1428
<212> DNA
<213> Nicotiana tabacum

<220>
<221> misc_feature
<223> seedyl coding sequence (CDS0689)

<400> 1
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gcagcatttg ataatggaga ttctgaagat ttgtcttcgc tgaaacgttc ttggtctcct   120
ctgaaacccc tttcggttag gccatcagat tcctttgaat ctgatttgtc aagtaaggaa   180
aatcaaactc ctttatttga gaattcatct gttaatctct catctccgtt acccataaag   240
ccacttaacc ctaatggggc tctggaaaat tcaagactca agccgaacaa gcccaattcc   300
aaacagagtc ttgatgagat ggcggctaga aagagcggaa agggaaatga tttccgtgat   360
gagaagaaaa tagacgagga aattgaagaa attcagatgg agattagtag gttgagttca   420
agattagagg ctttgagaat tgaaaaggct gagaaaactg ttgctaagac tgttgaaaag   480
cgaggaaggg ttgtggcagc aaagtttatg gagccaaaac aaagtgttat taagattgaa   540
gagcgtatat caatgagtgc aagaacaaag gtggagcaga gaagggtct tagtttagga   600
ccatctgaga tttttactgg aacgcggcgg cgagggttga gtatggggcc atcagatatt   660
ctagcaggga caacaaaggc acggcaattg ggaaagcaag agatgattat tactcctatt   720
cagccaatac aaaacaggcg aaagtcgtgt ttttggaagc ttcaagagat tgaagaagag   780
ggaaaaagtt caagccttag tcctaaatca agaaaaactg ctgcaagaac aatggttaca   840
acaaggcagg cagttactac aattgcatca aagaagaatt tgaaaaaaga tgatggactt   900
ttgagttcag ttcagccaaa gaagttgttt aaagatctcg aaaagtctgc tgctgctaat   960
aagaagcccc agaggccggg gaggggttgtg ctagtaggt ataatcagag tacaattcag   1020
tcatcagtag tgagaaagag gtctttacct gaaaatgata aggatgagag taagagaaat   1080
gataagaaac ggtcgttatc tgtagggaaa acgcgtgtgt ctcaaactga gagcaagaat   1140
ttgggtactg aaagtagggt gaaaaagaga tgggaaattc ctagtgagat tgtagttcat   1200
ggaaacacag agagtgagaa atctccacta agcattattg tgaagcctga tttgcttccg   1260
cgaattagga ttgctcggtg tgtgaatgag actcttaggg attctggacc tgctaaaaga   1320
atgatagagt tgataggcaa gaaatcgttt ttcagtagtg atgaagataa ggagccacct   1380
gtctgtcaag ttttaagttt tgcagaggaa gatgctgaag aggaataa   1428

<210> 2
<211> 475
<212> PRT
<213> Nicotiana tabacum

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<220>
<221>  MISC_FEATURE
<223>  seedyl protein (CDS0689)

<400>  2
Met Ser Val Leu Gln Tyr Pro Glu Gly Ile Asp Pro Ala Asp Val Gln
1               5                   10                  15

Ile Trp Asn Asn Ala Ala Phe Asp Asn Gly Asp Ser Glu Asp Leu Ser
            20                  25                  30

Ser Leu Lys Arg Ser Trp Ser Pro Leu Lys Pro Leu Ser Val Arg Pro
        35                  40                  45

Ser Asp Ser Phe Glu Ser Asp Leu Ser Ser Lys Glu Asn Gln Thr Pro
    50                  55                  60

Leu Phe Glu Asn Ser Ser Val Asn Leu Ser Ser Pro Leu Pro Ile Lys
65                  70                  75                  80

Pro Leu Asn Pro Asn Gly Ala Leu Glu Asn Ser Arg Leu Lys Pro Asn
            85                  90                  95

Lys Pro Asn Ser Lys Gln Ser Leu Asp Glu Met Ala Ala Arg Lys Ser
            100                 105                 110

Gly Lys Gly Asn Asp Phe Arg Asp Glu Lys Lys Ile Asp Glu Glu Ile
        115                 120                 125

Glu Glu Ile Gln Met Glu Ile Ser Arg Leu Ser Ser Arg Leu Glu Ala
    130                 135                 140

Leu Arg Ile Glu Lys Ala Glu Lys Thr Val Ala Lys Thr Val Glu Lys
145                 150                 155                 160

Arg Gly Arg Val Val Ala Ala Lys Phe Met Glu Pro Lys Gln Ser Val
            165                 170                 175

Ile Lys Ile Glu Glu Arg Ile Ser Met Ser Ala Arg Thr Lys Val Glu
            180                 185                 190

Gln Arg Arg Gly Leu Ser Leu Gly Pro Ser Glu Ile Phe Thr Gly Thr
        195                 200                 205

Arg Arg Arg Gly Leu Ser Met Gly Pro Ser Asp Ile Leu Ala Gly Thr
    210                 215                 220

Thr Lys Ala Arg Gln Leu Gly Lys Gln Glu Met Ile Ile Thr Pro Ile
225                 230                 235                 240

Gln Pro Ile Gln Asn Arg Arg Lys Ser Cys Phe Trp Lys Leu Gln Glu
            245                 250                 255

Ile Glu Glu Glu Gly Lys Ser Ser Ser Leu Ser Pro Lys Ser Arg Lys
            260                 265                 270

Thr Ala Ala Arg Thr Met Val Thr Thr Arg Gln Ala Val Thr Thr Ile
        275                 280                 285
```

CD105PCT.ST25.txt

```
Ala Ser Lys Lys Asn Leu Lys Lys Asp Asp Gly Leu Leu Ser Ser Val
    290                 295                 300

Gln Pro Lys Lys Leu Phe Lys Asp Leu Glu Lys Ser Ala Ala Ala Asn
305                 310                 315                 320

Lys Lys Pro Gln Arg Pro Gly Arg Val Val Ala Ser Arg Tyr Asn Gln
                325                 330                 335

Ser Thr Ile Gln Ser Ser Val Val Arg Lys Arg Ser Leu Pro Glu Asn
            340                 345                 350

Asp Lys Asp Glu Ser Lys Arg Asn Asp Lys Lys Arg Ser Leu Ser Val
        355                 360                 365

Gly Lys Thr Arg Val Ser Gln Thr Glu Ser Lys Asn Leu Gly Thr Glu
    370                 375                 380

Ser Arg Val Lys Lys Arg Trp Glu Ile Pro Ser Glu Ile Val Val His
385                 390                 395                 400

Gly Asn Thr Glu Ser Glu Lys Ser Pro Leu Ser Ile Ile Val Lys Pro
                405                 410                 415

Asp Leu Leu Pro Arg Ile Arg Ile Ala Arg Cys Val Asn Glu Thr Leu
            420                 425                 430

Arg Asp Ser Gly Pro Ala Lys Arg Met Ile Glu Leu Ile Gly Lys Lys
        435                 440                 445

Ser Phe Phe Ser Ser Asp Glu Asp Lys Glu Pro Pro Val Cys Gln Val
    450                 455                 460

Leu Ser Phe Ala Glu Glu Asp Ala Glu Glu Glu
465                 470                 475
```

```
<210>  3
<211>  1336
<212>  DNA
<213>  Oryza sativa

<220>
<221>  misc_feature
<223>  seedyl coding sequence

<400>  3
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tcctcgtgtt ccagatcggc ttggctcccc caaagccccg ccgtcgcggc cgtccgcaag     120
ggcgacaagg agaatcaccg ccccgaggtt gttgatgtcg ccgccggcta cgacgtcgag     180
gccgagatcg gccacatcga ggcggagatc ctgcgcctct cgtcccggct ccaccatctc     240
cgcgtctcca agcagccgga gcccaaccgc gacgacgctc cgatgggga  gatggtcgcg     300
aaggtgaggc cccggccgag gggcctcagc ctcgggcccc tggatgtgat ctccatcgtc     360
aatcgtgaga agcatccgct gcgcaccaag cagcctccgg gacgcggggg cagggggctc     420
agcctcgggc ccatggagat cgccgcggcg aaccctaggg tgcccgcggc ggcgcagcat     480
cagcaacagc aacgcgctgg cacggcgcgg atcctgaagc caatcaagga gcctccggtg     540
cagcgtcgca ggggcgtcag cctcgggccg ttggagatcc accacggcgt cggcagcaag     600
gcaccagcgg cggcgcgagc caagccgttc accaccaagc tcaacgccat cgagaagaa      660
acccgaccct ccaagcaatt cgccgtcccc gccaagccat ggccgtcgag caatacaagg     720
cagacactgg actcgaggca aggaacagca gcaagtcgag cgaaggcgag gagcccgagc     780
```

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CD105PCT.ST25.txt

```
cccaggccca ggaggcaatc caatggcaag gctactgaca caaggggagg caacaaggtg    840
gtggatgagc tcaagcccaa aggtgcgtcg tcaagtcaga gcggcagcgc cgccgccgcc    900
gccactgcca agaggatggc ggggagctcc aagatgaggg tcatcccgag ccgctacagc    960
ctcactcctg gcgcttccct tggaagcagt ggagcacagg agaggcgacg caagcagtct   1020
ctcccaggat catcagggga tgcgaaccag aatgaggaaa tcagagcgaa ggtcatcgag   1080
ccttccaatg atccactctc tcctcaaacg atctccaagg ttgctgaaat gctcccaaag   1140
atcaggacca tgccgcctcc tgacgagagc cctcgcgatt ccggatgcgc caagcgggtt   1200
gccgaattgg tcgggaagcg ctcgttcttc acggctgcag ccgaggacgg gcgggcgctc   1260
gacgtcgaag cacccgaggc ggtcgcagaa gcttgagatg aaccaccatg gtttgatccg   1320
ttccttccat cagctc                                                  1336
```

```
<210>   4
<211>   431
<212>   PRT
<213>   Oryza sativa

<220>
<221>   MISC_FEATURE
<223>   seedyl protein

<400>   4
Met Glu Glu Asp Pro Leu Ile Pro Leu Val His Val Trp Asn Asn Ala
1               5                  10                  15

Ala Phe Asp Asp Ser Ser Cys Ser Arg Ser Ala Trp Leu Pro Gln Ser
            20                  25                  30

Pro Ala Val Ala Ala Val Arg Lys Gly Asp Lys Glu Asn His Arg Pro
        35                  40                  45

Glu Val Val Asp Val Ala Ala Gly Tyr Asp Val Glu Ala Glu Ile Gly
    50                  55                  60

His Ile Glu Ala Glu Ile Leu Arg Leu Ser Ser Arg Leu His His Leu
65                  70                  75                  80

Arg Val Ser Lys Gln Pro Glu Pro Asn Arg Asp Asp Ala Pro Met Gly
                85                  90                  95

Glu Met Val Ala Lys Val Arg Pro Arg Pro Arg Gly Leu Ser Leu Gly
            100                 105                 110

Pro Leu Asp Val Ile Ser Ile Val Asn Arg Glu Lys His Pro Leu Arg
            115                 120                 125

Thr Lys Gln Pro Pro Ala Thr Arg Gly Arg Gly Leu Ser Leu Gly Pro
        130                 135                 140

Met Glu Ile Ala Ala Ala Asn Pro Arg Val Pro Ala Ala Ala Gln His
145                 150                 155                 160

Gln Gln Gln Gln Arg Ala Gly Thr Ala Arg Ile Leu Lys Pro Ile Lys
                165                 170                 175

Glu Pro Pro Val Gln Arg Arg Arg Gly Val Ser Leu Gly Pro Leu Glu
            180                 185                 190

Ile His His Gly Val Gly Ser Lys Ala Pro Ala Ala Ala Arg Ala Lys
        195                 200                 205
```

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CD105PCT.ST25.txt

```
Pro Phe Thr Thr Lys Leu Asn Ala Ile Arg Glu Glu Thr Arg Pro Ser
    210             215             220

Lys Gln Phe Ala Val Pro Ala Lys Pro Trp Pro Ser Ser Asn Thr Arg
225             230             235             240

Gln Thr Leu Asp Ser Arg Gln Gly Thr Ala Ala Ser Arg Ala Lys Ala
            245             250             255

Arg Ser Pro Ser Pro Arg Pro Arg Arg Gln Ser Asn Gly Lys Ala Thr
            260             265             270

Asp Thr Arg Gly Gly Asn Lys Val Val Asp Glu Leu Lys Pro Lys Gly
            275             280             285

Ala Ser Ser Ser Gln Ser Gly Ser Ala Ala Ala Ala Thr Ala Lys
    290             295             300

Arg Met Ala Gly Ser Ser Lys Met Arg Val Ile Pro Ser Arg Tyr Ser
305             310             315             320

Leu Thr Pro Gly Ala Ser Leu Gly Ser Ser Gly Ala Gln Glu Arg Arg
            325             330             335

Arg Lys Gln Ser Leu Pro Gly Ser Ser Gly Asp Ala Asn Gln Asn Glu
            340             345             350

Glu Ile Arg Ala Lys Val Ile Glu Pro Ser Asn Asp Pro Leu Ser Pro
            355             360             365

Gln Thr Ile Ser Lys Val Ala Glu Met Leu Pro Lys Ile Arg Thr Met
    370             375             380

Pro Pro Pro Asp Glu Ser Pro Arg Asp Ser Gly Cys Ala Lys Arg Val
385             390             395             400

Ala Glu Leu Val Gly Lys Arg Ser Phe Phe Thr Ala Ala Ala Glu Asp
            405             410             415

Gly Arg Ala Leu Asp Val Glu Ala Pro Glu Ala Val Ala Glu Ala
            420             425             430
```

```
<210>   5
<211>   1860
<212>   DNA
<213>   Medicago trunculata

<220>
<221>   misc_feature
<223>   seedyl coding sequence

<400>   5
aaaaacgtta aggactaaaa atataataaa atttaagtag ggattcataa tggaagcacc    60
cctatttaca gggatcttaa atataattaa ccctaatatt tatgacagaa acccttttga   120
aatcacatcg gagcgtgtat gagtagccgt ttcacatcca acggccagta agagcgtaac   180
tttatttctt ccctcttcaa tctccaacgg tcacataatc tcttccaaat acaaataatt   240
ccctctttca acctcactct tcatttcttc aacccaaacc caaaaaacta atcagattct   300
tcttaaatct tgaaaccttt ctcccaaaag cacttaaata aaaaagcact taaccatgaa   360
```
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CD105PCT.ST25.txt

```
taacacaaac aacaacaaca ttcttcttca ttccacacag gttcaagtgt ggaacaacgc    420
agcattcgat ggtgaagatt tcgccatgaa ttcatcttct gattccatca aagagaatct    480
aaacccatcc gcattcaaca ttgttccttc ttcaaacaaa agaactattg atgatgaaat    540
tgcggaaatt gaaagtgaaa ttaagcgatt aacttcgaag ctggaattgc ttcgtgttga    600
aaaagctgaa agaaaaatcg cttctgaaaa gcgtgttagt ggaattggta ctggaagaat    660
agtagcagcg aagtttatgg aaccgaagaa aaacgttaca ccgaaacgaa acggtgtcgt    720
tttcaaggag gagacaccga aacgaaacgg tgtcgtttcg gatacgccga aatctagggt    780
taattggaga gagggatga gtttaggtcc gatggagatt gccgggaaag tgatggcacc    840
gccggcgatg acgattactc cggcgacggt gaatcggagg aagtcttgtt ctggaaaacc    900
gcaggaaagt tgtgaagtaa·tgccgtcggg gattactccg gcgacggtga ataggaggaa    960
atcttgtttt ttgaaacctc aagaaagttg tgaagaaaat cgaagaaaaa cgatttgcaa   1020
accgaatttg aatttgaatt caaattcagt taattctgcg gttggatcga ttaagcgtgt   1080
gaagaagaaa gatgaagaaa ttgctcaggt tcaaccgaag aagctgtttg aaggtgaaaa   1140
atcagtgaag aaatcgttga aacaaggtag aattgttgca agccggtata attccggtgg   1200
tggtggtggt gatgcgagga aagatcgtt ttcggagaat aataagggtt tagggagtga   1260
aatcagggct aagaagagat gggagatacc aattgaagaa gtggatgtga gtggtttttgt   1320
tatgttaccg aagatttcga caatgaggtt tgttgatgag agtcctagag attctggtgc   1380
tgttaaaaga gttgctgaat tgaatggaaa aagatcttac ttttgtgatg aagatgagga   1440
ggagagagtg atggtggagg aagaaggtgg ttctgtttgt caggttttga attttgctga   1500
agatgatgat gatgatgatg attattggtga acaagggtaa ttgtggaaat tggaattgat   1560
ttgtttttgt ggggttgtgt ggaactggct atgttctgct tgattctttt gcattttggt   1620
gtgaaactaa agatggaggtg aaaagtttat gcttgttaaa ttggattggt ttatatgttt   1680
tgaaataata acaacaagca tgtgtcttgc ttaataattg tatattgttt tgtttgtttt   1740
ataatgatat ggatttaatt tgtatacaca atataatata gtatgcattg agagagtttt   1800
tcgttcagta ttcattctga ttttagtgtt tatctcattc tagaagattg tattttgttg   1860
```

<210> 6
<211> 394
<212> PRT
<213> Medicago trunculata

<220>
<221> MISC_FEATURE
<223> seedy1 protein

<400> 6

```
Met Asn Asn Thr Asn Asn Asn Asn Ile Leu Leu His Ser Thr Gln Val
1               5                   10                  15

Gln Val Trp Asn Asn Ala Ala Phe Asp Gly Glu Asp Phe Ala Met Asn
            20                  25                  30

Ser Ser Ser Asp Ser Ile Lys Glu Asn Leu Asn Pro Ser Ala Phe Asn
        35                  40                  45

Ile Val Pro Ser Ser Asn Lys Arg Thr Ile Asp Asp Glu Ile Ala Glu
    50                  55                  60

Ile Glu Ser Glu Ile Lys Arg Leu Thr Ser Lys Leu Glu Leu Leu Arg
65                  70                  75                  80

Val Glu Lys Ala Glu Arg Lys Ile Ala Ser Glu Lys Arg Val Ser Gly
                85                  90                  95

Ile Gly Thr Gly Arg Ile Val Ala Ala Lys Phe Met Glu Pro Lys Lys
            100                 105                 110

Asn Val Thr Pro Lys Arg Asn Gly Val Val Phe Lys Glu Glu Thr Pro
        115                 120                 125
```

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CD105PCT.ST25.txt

```
Lys Arg Asn Gly Val Val Ser Asp Thr Pro Lys Ser Arg Val Asn Trp
    130             135             140
```

```
Arg Arg Gly Met Ser Leu Gly Pro Met Glu Ile Ala Gly Lys Val Met
145             150             155             160
```

```
Ala Pro Pro Ala Met Thr Ile Thr Pro Ala Thr Val Asn Arg Arg Lys
                165             170             175
```

```
Ser Cys Phe Trp Lys Pro Gln Glu Ser Cys Glu Val Met Pro Ser Gly
            180             185             190
```

```
Ile Thr Pro Ala Thr Val Asn Arg Arg Lys Ser Cys Phe Leu Lys Pro
            195             200             205
```

```
Gln Glu Ser Cys Glu Glu Asn Arg Arg Lys Thr Ile Cys Lys Pro Asn
    210             215             220
```

```
Leu Asn Leu Asn Ser Asn Ser Val Asn Ser Ala Val Gly Ser Ile Lys
225             230             235             240
```

```
Arg Val Lys Lys Lys Asp Glu Glu Ile Ala Gln Val Gln Pro Lys Lys
                245             250             255
```

```
Leu Phe Glu Gly Glu Lys Ser Val Lys Lys Ser Leu Lys Gln Gly Arg
            260             265             270
```

```
Ile Val Ala Ser Arg Tyr Asn Ser Gly Gly Gly Gly Asp Ala Arg
            275             280             285
```

```
Lys Arg Ser Phe Ser Glu Asn Asn Lys Gly Leu Gly Ser Glu Ile Arg
    290             295             300
```

```
Ala Lys Lys Arg Trp Glu Ile Pro Ile Glu Glu Val Asp Val Ser Gly
305             310             315             320
```

```
Phe Val Met Leu Pro Lys Ile Ser Thr Met Arg Phe Val Asp Glu Ser
            325             330             335
```

```
Pro Arg Asp Ser Gly Ala Val Lys Arg Val Ala Glu Leu Asn Gly Lys
            340             345             350
```

```
Arg Ser Tyr Phe Cys Asp Glu Asp Glu Glu Glu Arg Val Met Val Glu
            355             360             365
```

```
Glu Glu Gly Gly Ser Val Cys Gln Val Leu Asn Phe Ala Glu Asp Asp
    370             375             380
```

```
Asp Asp Asp Asp Asp Tyr Gly Glu Gln Gly
385             390
```

```
<210>   7
<211>   674
<212>   DNA
<213>   Saccharum sp.

<220>
<221>   misc_feature
```

CD105PCT.ST25.txt
<223>   seedy1 coding sequence (partial 5' end)

<220>
<221>   misc_feature
<222>   (362)..(362)
<223>   n can be a, c, g or t

<220>
<221>   misc_feature
<222>   (372)..(372)
<223>   n can be a, c, g or t

<220>
<221>   misc_feature
<222>   (674)..(674)
<223>   n can be a, c, g or t

<400>   7
cgcaccgcga gtttcgaaaa accaacctat cgcgcctcag atcacgcgag gacgcgaggg   60
gaagcaggaa tccctccgct cccagccgcc tcctccgctc acccatcgat cgatcgtccg   120
tccggtccag ggggctctcc ggcggcggtg gcgatggagg aggacccgct catcccgctg   180
gtgcacgtct ggaacaacgc cgccttcgac cacgcctcct cctccgcgtg gcacgcccac   240
tcccctgtgc ccgcgagcgc acgtcgcgag gcggaggggg acaaggagaa ccaccgcccc   300
gaccccgacc cgacgtcga ggcggagatc ggccacatcg aggcggagat cctgcgcctg   360
tnctcccgcc tncaccacct tcgcacctcc aagcagtcgg agccgtccaa gcgcggagag   420
gtcgcgcccg cgcccgcggc gaaggcgaaa gcggcggcgg cggcgcggct gcggacgcgg   480
gggctcagcc tgggcccgct cgacgtcgcc gctgccggta accccaaccc gctcaccacc   540
gacaaccagc agcagcagcc gcgtgccgcg cagggtctga agccgatcaa gcaggccacg   600
gcggcggcgg gcaagggcgt aagacttggg ccccttcgac atggtcggcg cgaaccctag   660
ggtccctccg cccn   674

<210>   8
<211>   166
<212>   PRT
<213>   Saccharum sp.

<220>
<221>   MISC_FEATURE
<223>   seedy1 protein

<220>
<221>   MISC_FEATURE
<223>   seedy1 protein (partial N term)

<220>
<221>   MISC_FEATURE
<222>   (70)..(70)
<223>   Xaa can be any amino acid

<400>   8
Met Glu Glu Asp Pro Leu Ile Pro Leu Val His Val Trp Asn Asn Ala
1   5   10   15

Ala Phe Asp His Ala Ser Ser Ser Ala Trp His Ala His Ser Pro Val
            20   25   30

Pro Ala Ser Ala Arg Arg Glu Ala Glu Gly Asp Lys Glu Asn His Arg
        35   40   45

CD105PCT.ST25.txt

```
Pro Asp Pro Asp Pro Asp Val Glu Ala Glu Ile Gly His Ile Glu Ala
    50              55              60

Glu Ile Leu Arg Leu Xaa Ser Arg Leu His His Leu Arg Thr Ser Lys
65              70              75              80

Gln Ser Glu Pro Ser Lys Arg Gly Glu Val Ala Pro Ala Pro Ala Ala
                85              90              95

Lys Ala Lys Ala Ala Ala Ala Ala Arg Leu Arg Thr Arg Gly Leu Ser
            100             105             110

Leu Gly Pro Leu Asp Val Ala Ala Ala Gly Asn Pro Asn Pro Leu Thr
            115             120             125

Thr Asp Asn Gln Gln Gln Gln Pro Arg Ala Ala Gln Gly Leu Lys Pro
    130             135             140

Ile Lys Gln Ala Thr Ala Ala Ala Gly Lys Gly Val Arg Leu Gly Pro
145             150             155             160

Leu Arg His Gly Arg Arg
                165
```

<210> 9
<211> 876
<212> DNA
<213> Zea mays

<220>
<221> misc_feature
<223> seedyl coding sequence (partial 3' end)

<220>
<221> misc_feature
<222> (869)..(869)
<223> n = a, c, g or t

<400> 9
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ccagaccgtg gccatccagc aatgccaggc acccactgga tgccaggcaa ggcaccgcag   120
caagcagagc caaggcgagg agcgggagca taagccccag caggttcagg aggcagtcca   180
cttccaaggc tgccgagaca agagcgggaa atgccaagcc tacagaggcg acgaggggag   240
ggagcgaagc ggtcaatcac accagcaatg tagccacgac gaagaggccg gcggggagct   300
ccaaggtcag ggttgtcccg agccgctaca gcatcccacc tggctcctcc ctagcagctg   360
tgacacaagg caaccgatgc aagcagtctc tcccaggatc ggctactgag accagagtaa   420
atctcactga gccgccgaac gacgagttgt ctcctgaaga acttgccaag gttgcagagc   480
tgctcccaag gattaggacc atgccgcctt ctgatgagag cccgcgtgac tcgggatgtg   540
ccaagcgtgt tgctgatttg gtcgggaagc gatccttctt cactgctgca ggggacgatg   600
gcaatctcgt tacgccctac caggcacggg tggttgaact tgaatcaccc gaggcagcag   660
cagaagaagc agaagcttga gaagtttgtc tttgatcaat tccgaagtgg cttgcatctg   720
ggcgtggcct ctttttgcag tgtgtgctac tacatagtct actgttacat tcatatcata   780
tcacatttcc tattttttcc cccttgagac attgcttagt acttttgtgt tgccttgtga   840
aaagagagtg gaaggttcat ctgctgatnc cttgtt                            876
```

<210> 10
<211> 224
<212> PRT
<213> Zea mays

CD105PCT.ST25.txt

```
<220>
<221>  MISC_FEATURE
<223>  seedyl protein (partial C term)

<400>  10
Thr Arg Pro Ala Val Arg Glu Glu Glu Gly Gln Arg Ser Lys Glu His
1               5                   10                  15

Ala Val Pro Ala Arg Pro Trp Pro Ser Ser Asn Ala Arg His Pro Leu
            20                  25                  30

Asp Ala Arg Gln Gly Thr Ala Ala Ser Arg Ala Lys Ala Arg Ser Gly
        35                  40                  45

Ser Ile Ser Pro Ser Arg Phe Arg Arg Gln Ser Thr Ser Lys Ala Ala
        50                  55                  60

Glu Thr Arg Ala Gly Asn Ala Lys Pro Thr Glu Ala Thr Arg Gly Gly
65                  70                  75                  80

Ser Glu Ala Val Asn His Thr Ser Asn Val Ala Thr Thr Lys Arg Pro
                85                  90                  95

Ala Gly Ser Ser Lys Val Arg Val Val Pro Ser Arg Tyr Ser Ile Pro
            100                 105                 110

Pro Gly Ser Ser Leu Ala Ala Val Thr Gln Gly Asn Arg Cys Lys Gln
            115                 120                 125

Ser Leu Pro Gly Ser Ala Thr Glu Thr Arg Val Asn Leu Thr Glu Pro
        130                 135                 140

Pro Asn Asp Glu Leu Ser Pro Glu Glu Leu Ala Lys Val Ala Glu Leu
145                 150                 155                 160

Leu Pro Arg Ile Arg Thr Met Pro Pro Ser Asp Glu Ser Pro Arg Asp
            165                 170                 175

Ser Gly Cys Ala Lys Arg Val Ala Asp Leu Val Gly Lys Arg Ser Phe
            180                 185                 190

Phe Thr Ala Ala Gly Asp Asp Gly Asn Leu Val Thr Pro Tyr Gln Ala
            195                 200                 205

Arg Val Val Glu Leu Glu Ser Pro Glu Ala Ala Ala Glu Glu Ala Glu
    210                 215                 220

<210>  11
<211>  1257
<212>  DNA
<213>  Arabidopsis thaliana

<220>
<221>  misc_feature
<223>  seedyl coding sequence

<400>  11
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CD105PCT.ST25.txt

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aacgctgcct tcgacgatgg agattctcaa atcacttccg ccatcgaagc ttcttcttgg    120
tctcacctca acgaatcatt cgattccgat tgtagcaagg agaatcagtt tccgatttcg    180
gtttcctctt cgctccaatc ctcagtctcg atcaccgaag ctccgtcagc aaaatccaag    240
accgtgaaga ccaaatccgc cgcagatcgg agtaaaaagc gagatatcga tgcagagatc    300
gaagaagtag agaaggagat cggacgatta tcgacgaaat tggagtcgct ccgattagag    360
aaggcggagc aaaccgcaag aagcattgct atacgtggaa gaatcgttcc ggcgaagttc    420
atggaatcat ctcagaaaca agtgaaattc gacgattcgt gttttacagg atcgaaatca    480
agagccactc gtagaggcgt tagtcttgga ccagcggaga tattcaattc cgcgaagaaa    540
tctgaaactg tgactcctct tcaatcagct cagaatcgac gcaagtcttg tttctttaag    600
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ctgagtccga gatctcgcaa agcgaaaatg acggcagctc agaagcaagc agctacgacg    720
gtggggtcaa agagagctgt gaagaaagaa gaaggagttc tcttaacaat ccagcctaag    780
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gttgtggcta gtaggtacag tcaaatgggt aaaacgcaga ctggagagaa agatgttagg    900
aaaaggtcgt tgcctgagga tgaagagaaa gagaatcata agaggtcgga gaagagaaga    960
gcttctgatg aaagtaacaa gagtgaaggg agagtgaaga agagatggga gattccaagt   1020
gaagttgatc tgtatagcag tggtgagaac ggtgacgagt ctcctatagt taaggagcta   1080
cctaagatca gaacgcttcg tcgtgtggga gggagccctc gtgattcagg tgctgctaag   1140
agagttgcag aattacaagc caaggatcgt aacttcactt tttgccagct tctgaagttt   1200
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<210> 12
<211> 402
<212> PRT
<213> Arabidopsis thaliana

<220>
<221> MISC_FEATURE
<223> seedy1 protein

<400> 12
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Gln Ile Trp Asn Asn Ala Ala Phe Asp Asp Gly Asp Ser Gln Ile Thr
            20                  25                  30

Ser Ala Ile Glu Ala Ser Ser Trp Ser His Leu Asn Glu Ser Phe Asp
        35                  40                  45

Ser Asp Cys Ser Lys Glu Asn Gln Phe Pro Ile Ser Val Ser Ser Ser
    50                  55                  60

Leu Gln Ser Ser Val Ser Ile Thr Glu Ala Pro Ser Ala Lys Ser Lys
65                  70                  75                  80

Thr Val Lys Thr Lys Ser Ala Ala Asp Arg Ser Lys Lys Arg Asp Ile
                85                  90                  95

Asp Ala Glu Ile Glu Glu Val Glu Lys Glu Ile Gly Arg Leu Ser Thr
            100                 105                 110

Lys Leu Glu Ser Leu Arg Leu Glu Lys Ala Glu Gln Thr Ala Arg Ser
            115                 120                 125

Ile Ala Ile Arg Gly Arg Ile Val Pro Ala Lys Phe Met Glu Ser Ser
        130                 135                 140

Gln Lys Gln Val Lys Phe Asp Asp Ser Cys Phe Thr Gly Ser Lys Ser
```
                                  Page 11

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145                    150                    155                    160
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Arg Ala Thr Arg Arg Gly Val Ser Leu Gly Pro Ala Glu Ile Phe Asn
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Ser Ala Lys Lys Ser Glu Thr Val Thr Pro Leu Gln Ser Ala Gln Asn
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Arg Arg Lys Ser Cys Phe Phe Lys Leu Pro Gly Ile Glu Glu Gly Gln
                195   200   205

Val Thr Thr Arg Gly Lys Gly Arg Thr Ser Leu Ser Leu Ser Pro Arg
    210   215   220

Ser Arg Lys Ala Lys Met Thr Ala Ala Gln Lys Gln Ala Ala Thr Thr
225   230   235   240

Val Gly Ser Lys Arg Ala Val Lys Lys Glu Glu Gly Val Leu Leu Thr
                245   250   255

Ile Gln Pro Lys Arg Leu Phe Lys Glu Asp Glu Lys Asn Val Ser Leu
                260   265   270

Arg Lys Pro Leu Lys Pro Gly Arg Val Val Ala Ser Arg Tyr Ser Gln
                275   280   285

Met Gly Lys Thr Gln Thr Gly Glu Lys Asp Val Arg Lys Arg Ser Leu
    290   295   300

Pro Glu Asp Glu Glu Lys Glu Asn His Lys Arg Ser Glu Lys Arg Arg
305   310   315   320

Ala Ser Asp Glu Ser Asn Lys Ser Glu Gly Arg Val Lys Lys Arg Trp
                325   330   335

Glu Ile Pro Ser Glu Val Asp Leu Tyr Ser Ser Gly Glu Asn Gly Asp
                340   345   350

Glu Ser Pro Ile Val Lys Glu Leu Pro Lys Ile Arg Thr Leu Arg Arg
                355   360   365

Val Gly Gly Ser Pro Arg Asp Ser Gly Ala Ala Lys Arg Val Ala Glu
    370   375   380

Leu Gln Ala Lys Asp Arg Asn Phe Thr Phe Cys Gln Leu Leu Lys Phe
385   390   395   400

Glu Glu

<210>   13
<211>   3074
<212>   DNA
<213>   Artificial sequence

<220>
<223>   Sequence of the [PRO0090 - CDS0689 - terminator] expression
        cassette

CD105PCT.ST25.txt

<400> 13

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ttattgtaaa gttctacaaa gctaatttaa aagttattgc attaacttat ttcatattac    180
aaacaagagt gtcaatggaa caatgaaaac catatgacat actataattt tgtttttatt    240
attgaaatta tataattcaa agagaataaa tccacatagc cgtaaagttc tacatgtggt    300
gcattaccaa aatatatata gcttacaaaa catgacaagc ttagtttgaa aaattgcaat    360
ccttatcaca ttgacacata aagtgagtga tgagtcataa tattattttc tttgctaccc    420
atcatgtata tatgatagcc acaaagttac tttgatgatg atatcaaaga acatttttag    480
gtgcacctaa cagaatatcc aaataatatg actcacttag atcataatag agcatcaagt    540
aaaactaaca ctctaaagca accgatggga aagcatctat aaatagacaa gcacaatgaa    600
aatcctcatc atccttcacc acaattcaaa tattatagtt gaagcatagt agtaatttaa    660
atcaactagg gatatcacaa gtttgtacaa aaaagcaggc tggtaccggt ccggaattcc    720
cgggatatcg tcgacccacg cgtccgctga cgcgtgggtt ccactacatc aagacatcta    780
ctacactcat cttttttgca cttattgggt gtaaattttt gaaacccagt tgagaaaaat    840
gagtgtgtta caatacccag aagggattga cccagcagat gttcagatat ggaacaatgc    900
agcatttgat aatggagatt ctgaagattt gtcttcgctg aaacgttctt ggtctcctct    960
gaaacccctt tcggttaggc catcagattc ctttgaatct gatttgtcaa gtaaggaaaa   1020
tcaaactcct ttatttgaga attcatctgt taatctctca tctccgttac ccataaagcc   1080
acttaaccct aatggggctc tggaaaattc aagactcaag ccgaacaagc ccaattccaa   1140
acagagtctt gatgagatgg cggctagaaa gagcggaaag ggaaatgatt tccgtgatga   1200
gaagaaaata gacgaggaaa ttgaagaaat tcagatggag attagtaggt tgagttcaag   1260
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gcgtatatca atgagtgcaa gaacaaaggt ggagcagaga aggggtctta gtttaggacc   1440
atctgagatt tttactggaa cgcggcggcg agggttgagt atggggccat cagatattct   1500
agcagggaca acaaaggcac ggcaattggg aaagcaagag atgattatta ctcctattca   1560
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aaaaagttca agccttagtc ctaaatcaag aaaaactgct gcaagaacaa tggttacaac   1680
aaggcaggca gttactacaa ttgcatcaaa gaagaatttg aaaaaagatg atggactttt   1740
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ccaagcttac gcgtacccag ctttcttgta caaagtggtg atatcacaag cccgggcggt   2580
cttctaggga taacagggta attatatccc tctagatcac aagcccgggc ggtcttctac   2640
gatgattgag taataatgtg tcacgcatca ccatgggtgg cagtgtcagt gtgagcaatg   2700
acctgaatga acaattgaaa tgaaagaaa aaagtactc catctgttcc aaattaaaat   2760
tcattttaac cttttatag gtttatacaa taattgatat atgttttctg tatatgtcta   2820
atttgttatc atccgggcgg tcttctaggg ataacaggt aattatatcc ctctagacaa   2880
cacacaacaa ataagacgaaa aaacaaataa tattaatttg agaatgaaca aaaggaccat   2940
atcattcatt aactcttctc catccatttc catttcacag ttcgatagcg aaaaccgaat   3000
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<210> 14
<211> 668
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<213> Oryza sativa

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CD105PCT.ST25.txt
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gttattgtaa agttctacaa agctaattta aaagttattg cattaactta tttcatatta     180
caaacaagag tgtcaatgga acaatgaaaa ccatatgaca tactataatt ttgtttttat     240
tattgaaatt atataattca aagagaataa atccacatag ccgtaaagtt ctacatgtgg     300
tgcattacca aaatatatat agcttacaaa acatgacaag cttagtttga aaaattgcaa     360
tccttatcac attgacacat aaagtgagtg atgagtcata atattatttt tcttgctacc     420
catcatgtat atatgatagc cacaaagtta ctttgatgat gatatcaaag aacattttta     480
ggtgcaccta acagaatatc caaataatat gactcactta gatcataata gagcatcaag     540
taaaactaac actctaaagc aaccgatggg aaagcatcta taaatagaca agcacaatga     600
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caacaaca                                                             668

<210>  15
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<212>  PRT
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<220>
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<220>
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<222>  (2)..(2)
<223>  Xaa can be any amino acid

<220>
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<223>  Xaa can be any amino acid

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1               5

<210>  16
<211>  6
<212>  PRT
<213>  Artificial sequence

<220>
<223>  Motif 2 CORE SEQUENCE

<220>
<221>  MISC_FEATURE
<222>  (4)..(5)
<223>  Xaa can be any amino acid

<400>  16
Lys Glu Asn Xaa Xaa Pro
1               5

<210>  17
<211>  15
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CD105PCT.ST25.txt

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<212>  PRT
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<220>
<223>  Motif 3 (coiled coil) CORE SEQUENCE

<220>
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<223>  Xaa can be a stretch of 1 to 6 amino acids

<220>
<221>  MISC_FEATURE
<222>  (4)..(5)
<223>  Xaa can be any amino acid

<220>
<221>  MISC_FEATURE
<222>  (8)..(10)
<223>  Xaa can be any amino acid

<220>
<221>  MISC_FEATURE
<222>  (12)..(13)
<223>  Xaa can be any amino acid

<400>  17
Glu Xaa Glu Xaa Xaa Arg Leu Xaa Xaa Xaa Leu Xaa Xaa Leu Arg
1               5                   10                  15

<210>  18
<211>  15
<212>  PRT
<213>  Artificial sequence

<220>
<223>  Motif 4 CORE SEQUENCE

<220>
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<222>  (3)..(3)
<223>  Xaa can be any amino acid

<220>
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<222>  (5)..(5)
<223>  Xaa can be a stretch of 1 to 10 amino acids

<220>
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<222>  (10)..(11)
<223>  Xaa can be any amino acid

<220>
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<222>  (14)..(14)
<223>  Xaa can be a stretch of 1 to 6 amino acids

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CD105PCT.ST25.txt
Leu Pro Xaa Ile Xaa Arg Asp Ser Gly Xaa Xaa Lys Arg Xaa Lys
1   5   10   15